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JOWA STATE CLEGE

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THE DEPARTMENT OF STRUCTURE DESIGN.

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# IOWA STATE COLLEGE

OF AGRICULTURE AND MECHANIC ARTS

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#### PRELIMINARY ANNOUNCEMENT

OF THE

## Department of Structure Design

ITS IDEALS AND AIMS



#### DIVISION OF ENGINEERING

#### Ames, Iowa

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### Department of Structure Design

The Course in Structure Design has been established in response to the demand for improvement in the design of buildings adapted to conditions in Iowa. Instruction will be offered in the design of rural architecture, as well as for engineering and architectural structures.

With the opening of the fall semester of 1914, a complete course extending over a period of four years will be commenced. Any person who is admitted to the College is eligible for classifying in the work. Not only will students in the Division of Engineering be given the opportunity of doing work in the Department, but all those in other departments who so desire may choose elective courses. For example, regular agricultural students can elect work in the design of farm structures, and women in the Department of Home Economics the art of designing attractive homes. Students classifying in the regular course will be eligible for the degree of B. S. in Structure Design. Graduates of the four years course can secure the advancd degree of Structure Designer in one of two ways: either upon completion of five years of successful professional work and the presentation of a satisfactory thesis, or by taking one year of graduate work in the College, completing one year of satisfactory professional work and presenting an acceptable thesis.

The course is so planned as to give the student a good and thorough training in the art of design as applied to architectural structures, and a sound basis for the application of an engineering knowledge to the problems as presented, by conditions in Iowa. The obligation of this Department is to train leaders in design. For leadership, men must be given the power to understand the movement in which they are to take part. They must possess a knowledge of the fundamental elements and principles and their application to specific, practical types of buildings. Such understanding demands a familiarity not only with the history of structure design itself, but with general history, language, and a multitude of other subjects for which the four year course affords but little scope. The course has been so arranged as to give as much cultural work as pos-

sible without reducing the purely professional work to a minimum.

Central in the work of the Department will be the direct instruction in design. This will be given not only by the solution and criticism of problems in design, but by constant parallel lectures and research work in the library and laboratory. The sequence of lectures and problems is an orderly one, devised to secure a steady development from simple to complex with atten-



tion focused on one new thing at a time. In the first semester of the Freshman year, a course in general lectures on the principles and qualities of Structure Design will be given, each lecture to be illustrated by the stereoptican. These lectures will continue through four successive semesters. Parallel with them there will be library work and practice in design and presentation of the elements in the drafting room. Every effort will be made to familiarize the student with as large a vocabulary of architectural terms as possible. He will have ample opportunity to apply his knowledge in many interesting problems. In such a state as Iowa where there are many varieties of building materials, for example, brick, hollow tile, concrete and wood, there will be ample opportunity to study problems from the practical application of these materials.

The third year begins the purely professional training of the

student. He will enter the classes in working drawing and building construction and design of various types of simple structures. As he gains proficiency the problems will become more complicated and, hence, more interesting. The originality of the designer plays an important part in the work, and in order to gain facility and ease in the use of the various media and kinds of expression he will be trained in free-hand drawing and water color rendering.

In the fourth or Senior year the student will have the opportunity of studying design of reinforced concrete structures, heating and ventilation, plumbing and sanitation, together with ample time for advanced problems in structure design, including an original thesis. The staff realizes the need of a good library of architectural material in order to conduct the work. Provision is now being made for a generous appropriation for books, lantern slides, and other equipment. With ample equipment there is only one thing else necessary and that is a strong, sturdy and enthusiastic enrollment of students. Success cannot help but follow and thus spread the good work of the College through the large and prosperous state of Iowa.

Iowa State College offers 4-year courses in agronomy, agricultural education, animal husbandry, ceramic engineering, chemical engineering, dairying, horticulture and forestry, home economics, industrial science, and structure design; 4 and 5-year courses in agricultural, civil, electrical, mechanical and mining engineering; 5-year courses in science and agriculture, science and engineering, and science and home economics; a 6-year course in science and veterinary medicine. There are also 2-year sub-collegiate courses in agriculture, in vocational work along engineering lines, and in home economics; and 1-year course in dairying.

